

Miniature Network Data Acquisition System for Airborne Sensors, Phase I

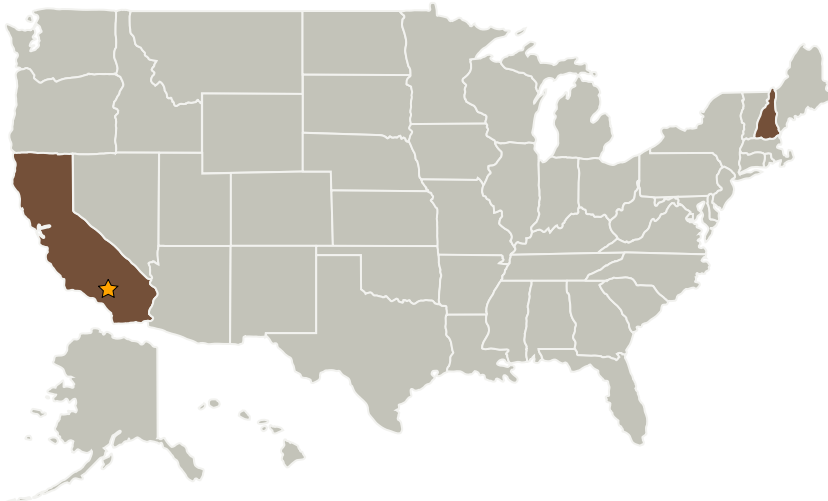
Completed Technology Project (2009 - 2009)



Project Introduction

Over-the-horizon communications and information networks are beginning to produce sustainable capabilities for Earth science operations using advanced uncrewed vehicles. There is a growing need for affordable desktop access to globally deployable data acquisition and data processing sensor-web networks on board these airborne platforms. Central to meeting this need is further miniaturizing on-board computing, data acquisition, and satellite network communication equipment. With current technology, the associated on-board components weigh several pounds. We propose to reduce the weight to mere ounces while also lowering cost and power consumption. This will greatly expand the deployment of this technology to new-generation ultra-small uncrewed air vehicles, other space and weight-constrained airborne systems, and a wide range of terrestrial applications.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Armstrong Flight Research Center(AFRC)	Lead Organization	NASA Center	Edwards, California
Erigo Technologies LLC	Supporting Organization	Industry	Enfield, New Hampshire



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Armstrong Flight Research Center (AFRC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Primary U.S. Work Locations

California

New Hampshire

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX02 Flight Computing and Avionics
 - └ TX02.2 Avionics Systems and Subsystems
 - └ TX02.2.8 Use of Advanced Commercial-off-the-Shelf (COTS) Technologies